

*THE EFFECTIVENESS OF CONTINGENCY-SPECIFIC AND  
CONTINGENCY-NONSPECIFIC PROMPTS IN  
CONTROLLING BATHROOM GRAFFITI*

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This study replicates and extends the work of Watson (1996) in which a sign eliminated graffiti when posted on bathroom walls. The present study investigated the effects of three different signs on walls in six men's bathrooms located on a university campus. Posting the signs was followed by the elimination or sharp reduction of graffiti. Removal of the signs was followed by a resurgence of graffiti.

DESCRIPTORS: community behavior analysis, prompts, graffiti, signs

Graffiti represents a nuisance to public and private establishments that strive to maintain a clean bathroom environment. Further, the often obscene and distasteful messages are aversive for many users who are offended by vulgarity. Multiple desirable behavior changes have been achieved by the use of signs, and, relevant to this paper, Watson (1996) showed that signs could be used to reduce bathroom graffiti.

At least three types of sign-based messages have produced success. Austin, Hatfield, Grindle, and Bailey (1993) found that placing signs over different receptacles that simply identified the types of items to be disposed, but that contained no contingency, increased recycling in an office setting. Cope and Allred (1991) used signs that specified a negative contingency to reduce illegal parking in spaces reserved for individuals with disabilities in a shopping center parking lot. Watson (1996) found that signs specifying delayed positive contingencies com-

pletely eliminated graffiti in men's bathrooms.

Watson (1996) used a sign with an altruistic or positive contingency, and Cope and Allred (1991) used a sign with a negative social contingency. It is unknown whether prompts that infer other contingencies or prompts that contain no contingency (e.g., Austin et al., 1993) would have produced similar behavior change in those studies. The purpose of this study was to replicate and extend Watson's findings by evaluating the effects of the presence and subsequent removal of three types of prompts pertinent to bathroom graffiti: Watson's positive contingency, a prompt with a negative contingency, and one with no contingency.

## METHOD

### *Setting and Design*

The study was conducted in six men's bathrooms in different buildings at a university in the southeastern United States during the fall semester. Selection criteria included visual inspection by the authors and reports from the university physical plant detailing which bathrooms were painted and cleaned most frequently because of graffiti. The six bathrooms were randomly placed into two-bathroom pairs that received iden-

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tical signs. Each bathroom was a series in a multiple baseline across settings design, resulting in three separate two-series multiple baselines.

### *Signs*

Each sign was printed in 20-point font, Times New Roman letters on an 8½ by 11 in. piece of white paper. One sign was identical to that used by Watson (1996), which specified the positive contingency and read, "A local licensed doctor has agreed to donate a set amount of money to the local chapter of the United Way for each day this wall remains free of any writing, drawing, or other markings. Your assistance is greatly appreciated in helping to support your United Way." The United Way is a charitable organization in the United States. A second sign specified the negative contingency and read, "If you are caught writing, drawing, or marking the walls, you will be prosecuted according to university policy." A third sign, which was neutral and stated no contingency, read, "Please do not write, draw, or mark on these walls."

### *Data Collection and Interobserver Reliability*

Data collection was similar to that in Watson (1996). At the same time every day, one of three different trained data collectors entered each bathroom and counted the number of marks. Data were collected only when the bathrooms were unoccupied. A mark was defined as a letter, mark, punctuation, or other line that had not already been counted. All data collection occurred during a fall semester that began in late August and ended in early December. Interobserver agreement was established by comparing the counts of two independent observers and dividing the lower number by the higher and multiplying by 100%. Mean reliability, collected over 26% of the observation days, was 99.54%, with a range of 94.3% to 100%.

### *Procedure*

Prior to the beginning of baseline, each bathroom was painted and data were collected in the manner described above for 10 and 15 days for each two-series multiple-baseline design. Following baseline, the walls in each bathroom were repainted and allowed to dry for 48 hr. One of the three signs was randomly selected and affixed to the location in the bathroom that had received the most writing during baseline. Bathrooms 1 and 2 received the positive sign, Bathrooms 3 and 4 received the negative sign, and Bathrooms 5 and 6 received the sign specifying no contingency. After data were collected during the intervention, signs were removed and the cumulative number of markings was recorded each day in the removal phase. The walls of the bathrooms were not repainted during the removal phase.

## RESULTS AND DISCUSSION

The results show consistent and steep increasing trends in baseline followed by either elimination or considerably fewer instances of graffiti throughout intervention, with resurgence following sign removal (see Figure 1). While the signs were posted, graffiti was completely eliminated in four of six bathrooms, with an increase in the number of marks on only 1 day in Bathroom 2 (positive series) and increases on 4 days in Bathroom 4 (negative series).

These results extend the findings of Watson (1996) by showing that the presence of a posted prompt rather than a stated contingency was the reactive component of the intervention. During sign removal, our results failed to fully replicate those of Watson (1996) and more closely resembled the results found by Cope and Allred (1991). Specifically, graffiti resurged during sign removal. Reasons for this resurgence are speculative

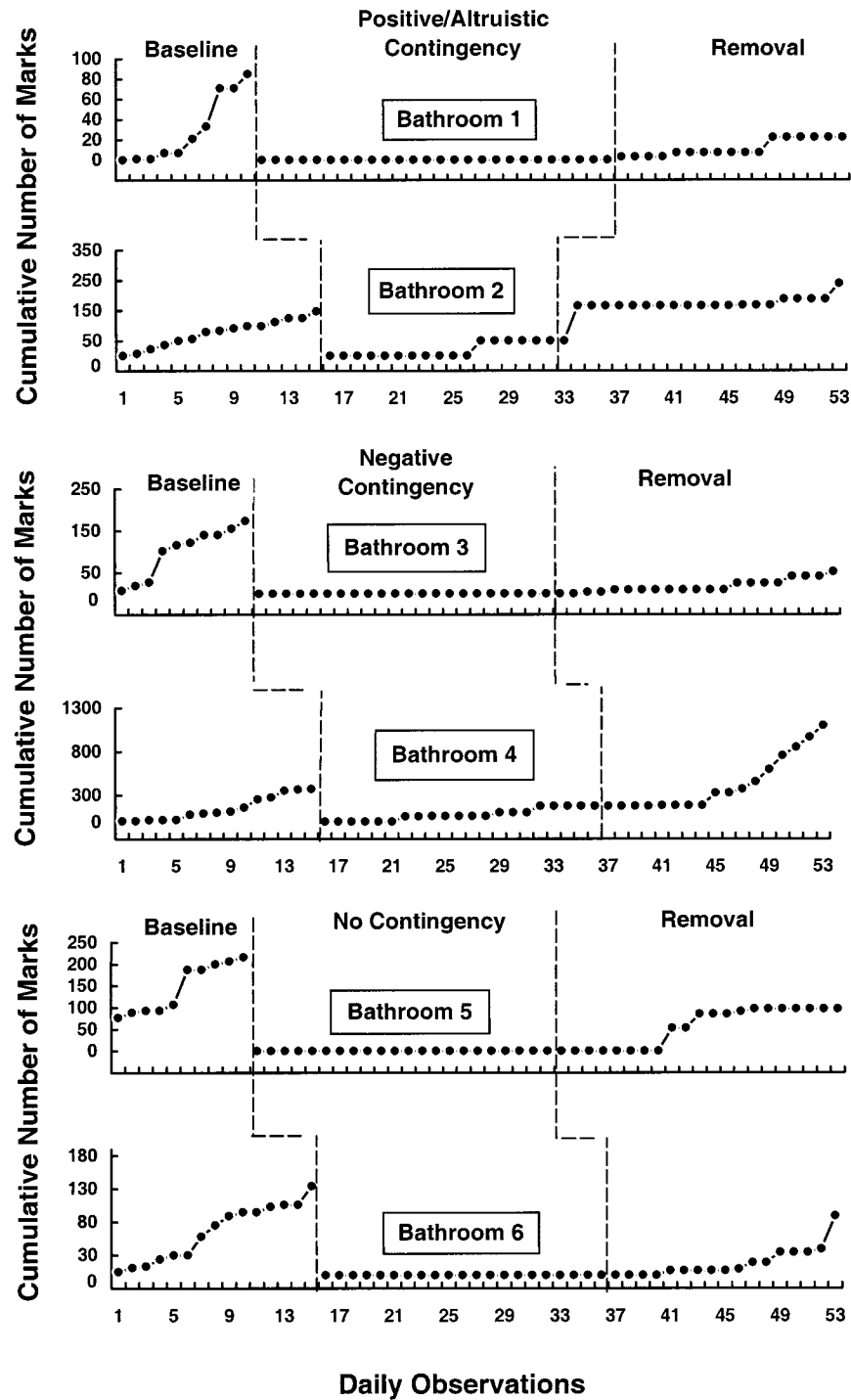


Figure 1. Cumulative number of marks made in Bathrooms 1 and 2, Bathrooms 3 and 4, and Bathrooms 5 and 6 during baseline, sign posting, and sign removal phases. Cumulative frequencies were reset to zero at the beginning of each experimental phase.

because our design did not allow determination of whether bathroom users were the same during sign and withdrawal conditions. The current results indicate that the presence of the signs was necessary to produce and maintain results.

The present study was not able to make direct comparisons as to which sign exerted more or less control relative to the other signs. Future research could address this question by employing alternating treatments designs that would allow different signs to be posted in the same bathrooms. Another question for future research is whether the positive results obtained here could be obtained in women's bathrooms. A question that may always remain unanswered is whether a functional relation could be established between signs and graffiti

written by individuals. Privacy rights preclude direct observation. These unanswered questions notwithstanding, our results combined with those from Watson (1996) do suggest signs as an effective means of controlling graffiti.

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